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IDENTIFICATION OF A CULTURE MEDIUM COMPONENT BASED ON PARAMETERS OF MEDIUM COMPONENTS

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MEASURE FIRST INDICIA OF A PROPERTY OF A FIRST PLURALITY OF CULTURE MEDIA WHICH EACH CONTAINS A FIRST TEST COMPOUND CHOSEN FORM A FIRST TEST LIBRARY BASED ON A SPACE-FILLING TECHNIQUE

104

DETERMINE RELATIONSHIP BETWEEN AT LEAST ONE PARAMETER OF THE FIRST TEST COMPOUNDS AND THE MEASURED INDICIA OF THE PROPERTY, WHERE THE RELATIONSHIP IS REPRESENTED BY  $\hat{y}_i = f(x_{ij})$ , WHERE,  $x_{ij}$  DENOTES A PARAMETER, I RANGES FROM 1 TO n WHERE n REPRESENTS THE NUMBER OF FIRST CULTURE MEDIA IN THE PLURALITY THEREOF, j RANGES FROM 1 TO d WHERE d REPRESENTS THE NUMBER OF PARAMETERS, AND  $\hat{y}_i$  REPRESENTS AN ESTIMATE OF THE MEASURED FIRST INDICIA OF THE PROPERTY OF THE PLURALITY OF FIRST CULTURE MEDIA

106

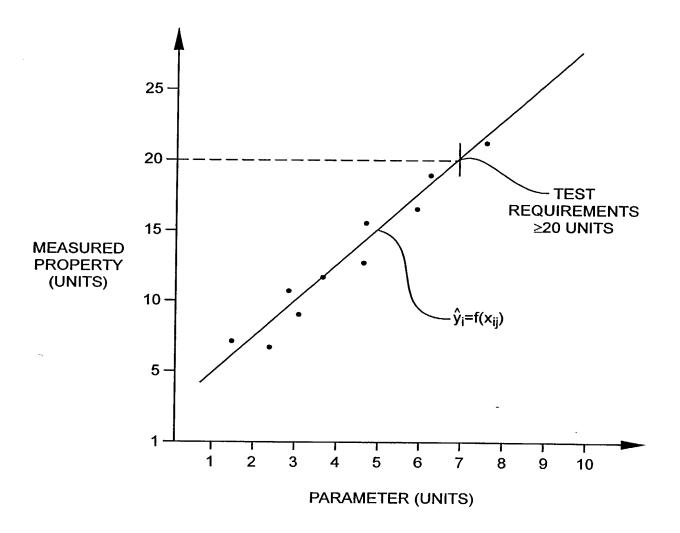
DETERMINE A TEST MEASUREMENT RELATING TO THE MEASURED FIRST INDICIA

108

BASED ON THE RELATIONSHIP BETWEEN THE MEASURED FIRST INDICIA AND AT LEAST ONE PARAMETER OF THE FIRST TEST COMPOUNDS, IDENTIFY A SECOND TEST LIBRARY CONTAINING A PLURALITY OF SECOND TEST COMPOUNDS AS COMPONENTS OF A PLURALITY OF SECOND CULTURE MEDIA WHICH ARE EACH PREDICTED TO PROVIDE INDICIA OF THE PROPERTY THAT SATISFIES THE TEST REQUIREMENT

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FIG. 2



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IDENTIFICATION OF A CULTURE MEDIUM COMPONENT BASED ON PARAMETERS OF MEDIUM COMPONENTS

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MEASURE FIRST INDICIA OF A PROPERTY OF A FIRST PLURALITY OF CULTURE MEDIA WHICH EACH CONTAINS A FIRST TEST COMPOUND CHOSEN FROM A FIRST TEST LIBRARY BASED ON A SPACE-FILLING TECHNIQUE

304

DETERMINE A TEST MEASUREMENT RELATING TO THE MEASURED FIRST INDICIA

306

DETERMINE A RELATIONSHIP BETWEEN AT LEAST ONE PARAMETER OF THE FIRST TEST COMPOUNDS AND THE MEASURED INDICIA OF THE PROPERTY, WHERE THE RELATIONSHIP IS REPRESENTED BY A DISTANCE FUNCTION d(x<sub>1</sub>, x<sub>2</sub>) BETWEEN A FIRST VALUE OF A PARAMETER, x<sub>1</sub>, OF A FIRST TEST COMPOUND AND A SECOND VALUE OF THE PARAMETER, x<sub>2</sub>, OF A SECOND TEST COMPOUND NOT WITHIN THE PLURALITY OF FIRST TEST COMPOUNDS

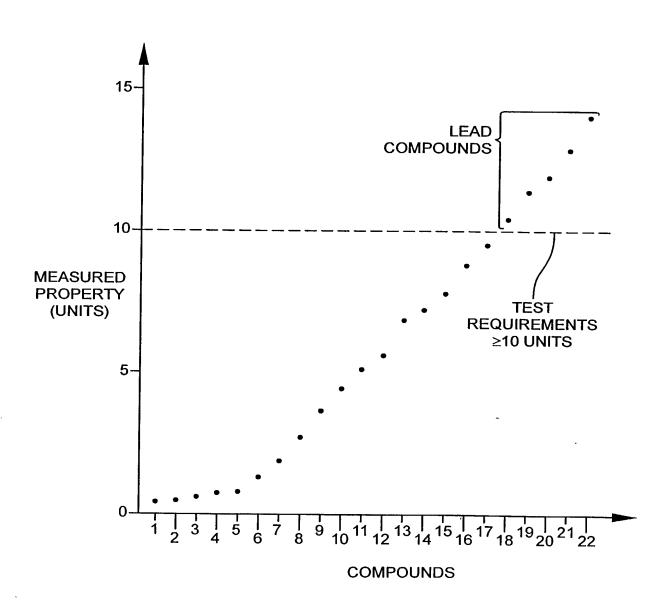
308

ESTIMATING INDICIA OF THE PROPERTY OF A CULTURE MEDIUM CONTAINING THE ADDITIONAL TEST COMPOUND AS THE INDICIA OF THE PROPERTY OF THE CULTURE MEDIUM CONTAINING THE FIRST TEST COMPOUND IF  $d(x_1, x_2) \le d_{cutoff}$ , WHERE  $d_{cutoff}$  IS A CUTOFF DISTANCE

310

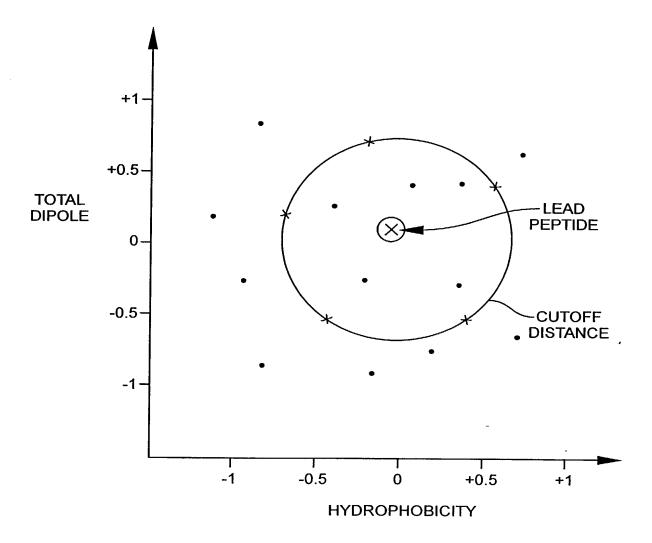
BASED ON THE RELATIONSHIP BETWEEN THE MEASURED FIRST INDICIA AND AT LEAST ONE PARAMETER OF THE FIRST TEST COMPOUNDS, IDENTIFY A SECOND TEST LIBRARY CONTAINING A PLURALITY OF SECOND TEST COMPOUNDS AS COMPONENTS OF A PLURALITY OF SECOND CULTURE MEDIA WHICH ARE EACH PREDICTED TO PROVIDE INDICIA OF THE PROPERTY THAT SATISFIES THE TEST REQUIREMENT

FIG. 4A

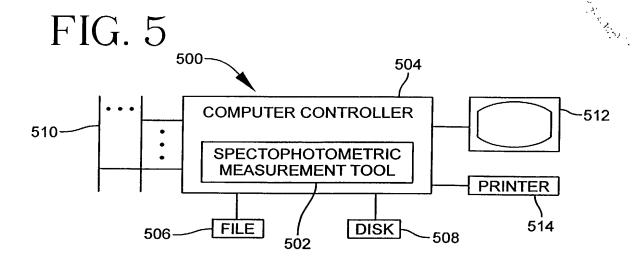


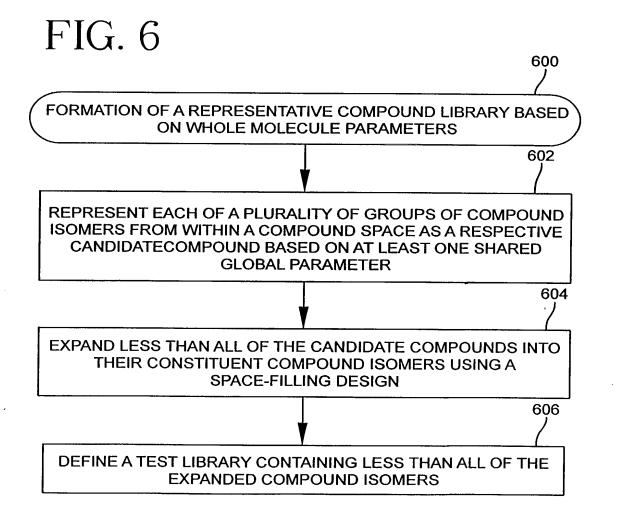
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FIG. 4B



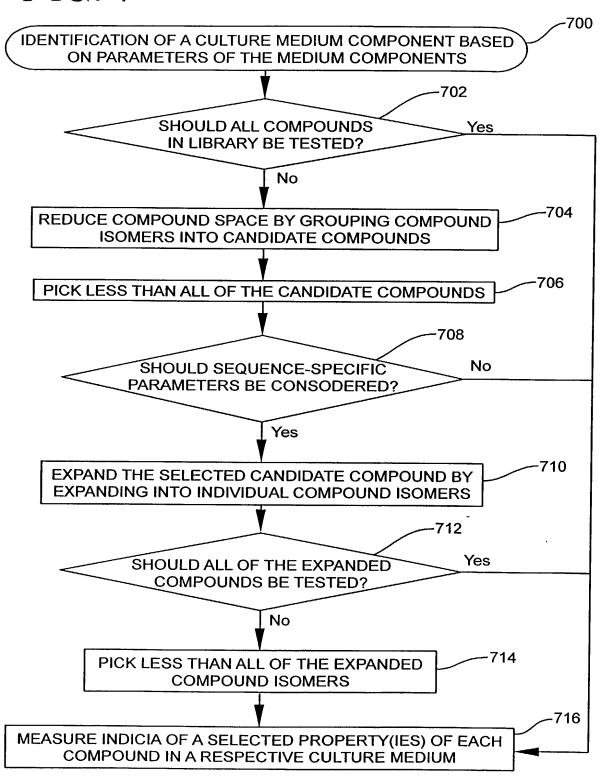
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## FIG. 7



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## FIG. 8

